



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
(MBHB Case No. 03-659)

In re Application of: )  
                            )  
                    Markus Kaufmann, et al.     )     Examiner: Not yet known  
                            )  
Serial No.:    10/626,796                 )     Group Art Unit: TBD  
                            )  
Filed:          July 23, 2003                 )  
                            )  
For:   Automatic Crown and Gingiva Detection     )  
         from Three-Dimensional Virtual Model     )  
         of Teeth                                     )

**TRANSMITTAL LETTER**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

1. We are transmitting herewith the attached:
  1. Information Disclosure Statement Pursuant to 37 C.F.R. §§ 1.97-1.98
  2. Form PTO-1449
  3. Cited references
  4. Return Postcard
2. With respect to additional fees:
  - A.  No additional fee is required.
  - B.  Attached is a check in the amount of \$.
  - C.  Charge any required fee to our Deposit Account No. 13-2490.
3. Please charge any additional fees or credit overpayment to Deposit Account No. 13-2490. A duplicate copy of this sheet is enclosed.
4. **CERTIFICATE OF MAILING UNDER 37 CFR § 1.8:** The undersigned hereby certifies that this Transmittal Letter and the paper, as described in paragraph 1 hereinabove, are being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 21<sup>st</sup> day of October, 2003.

By Thomas A. Fairhall  
Thomas A. Fairhall  
Reg. No. 34,591



UNITED STATES PATENT AND TRADEMARK OFFICE  
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                            )  
                            )  
Detection from Three-Dimensional     )  
Virtual Model of Teeth         )

**INFORMATION DISCLOSURE STATEMENT  
PURSUANT TO 37 C.F.R. §§ 1.97-1.98**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 C.F.R. §§ 1.97 - 1.98, the Applicants wish to make the following references of record in the above-identified application. A copy of each reference is enclosed. This Information Disclosure Statement is in compliance with the duty of candor as set forth in 37 C.F.R. § 1.56. These references are also listed on the enclosed PTO Form 1449. It is requested that the documents be given careful consideration and that they be cited of record in the prosecution history of the present application so that they will appear on the face of the patent issuing of the present application.

In the judgment of the undersigned, portions of the references may be material to the examination of the pending claims. No representation is intended as to the relative importance of any portion of the references. This Statement is not a representation that the cited references have effective dates early enough to be "prior art" within the meaning of 35 USC sections 102 or 103.

#### CITED REFERENCES

#### U.S. PATENTS

1. No. 5,338,198, Wu et al., issued August 16, 1994
2. No. 5,879,158, Doyle et al., issued March 9, 1999
3. No. 5,975,893, Chishti et al., issued November 2, 1999
4. No. 6,015,289, Andreiko et al., issued January 18, 2000
5. No. 6,068,482, Snow, issued May 30, 2000
6. No. 6,099,314, Kopelman et al., issued August 8, 2000
7. No. 6,227,850, Chishti et al., issued May 8, 2001
8. No. 6,371,761, Cheang et al., issued April 16, 2002
9. No. 6,386,878, Pavlovskaia et al., issued May 14, 2002
10. No. 6,409,504, Jones et al., issued June 25, 2002
11. No. 6,463,344, Pavlovskaia et al., issued October 8, 2002

#### FOREIGN PATENT:

1. Published PCT Application No. PCT/US01/11969, Publication No. WO 01/80761, published November 1, 2001, Inventors: Rubbert et al.

#### OTHER DOCUMENTS

1. U.S. Patent Application Publication No. 2002/00102009, Jones et al., dated August 1, 2003.
2. U.S. Patent Application Publication No. 2002/0177108, Pavlovskaia et al., dated November 28, 2002.
3. U.S. Patent Application Publication No. 2003/0039389, Jones et al., dated February 27, 2003.

4. U.S. Patent Application Publication No. 2003/0039941, Chishti et al., dated February 27, 2003.
5. S.M. Yammy and A.A. Farag, "A System for Human Jaw Modeling Using Intra-Oral Images", in Proc. *IEEE Eng. Med. Biol. Soc. (EMBS) Conf.*, Vol. 20, Hong Kong, Oct. 1998, pp.563-566.
6. M. Yammy, A.A. Farag, David Tasman, A.G. Farman, "A 3-D Reconstruction System for the Human Jaw Using a Sequence of Optical Images", *IEEE Transactions on Medical Imaging*, Vol. 19, No. 5, May 2000, pp. 538-547.

Date: 10/21/03

Respectfully Submitted,  
McDonnell Boehnen Hulbert & Berghoff  
By: Thomas A. Fairhall  
Thomas A. Fairhall  
Reg. No. 34,591

**CERTIFICATE OF MAILING**

The undersigned hereby certifies that the foregoing **Information Disclosure Statement Pursuant to 37 C.F.R. §§ 1.97-1.98** is being deposited in the United States Postal Service, as first class mail postage prepaid, in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 21<sup>st</sup> day of October, 2003.

Thomas A. Fairhall  
Thomas A. Fairhall



## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc).

		U.S. Patent Application Publication No. 2002/00102009, Jones et al., dated August 1, 2003.
		U.S. Patent Application Publication No. 2002/0177108, Pavlovskaia et al., dated November 28, 2002.
		U.S. Patent Application Publication No. 2003/0039389, Jones et al., dated February 27, 2003.
		U.S. Patent Application Publication No. 2003/0039941, Chishti et al., dated February 27, 2003.
		S.M. Yammy and A.A. Farag, "A System for Human Jaw Modeling Using Intra-Oral Images", in Proc. <i>IEEE Eng. Med. Biol. Soc. (EMBS) Conf.</i> , Vol. 20, Hong Kong, Oct. 1998, pp.563-566.
		M. Yammy, A.A. Farag, David Tasman, A.G. Farman, "A 3-D Reconstruction System for the Human Jaw Using a Sequence of Optical Images", <i>IEEE Transactions on Medical Imaging</i> , Vol. 19, No. 5, May 2000, pp. 538-547.
EXAMINER		DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449  
(Rev. 2-32)



U.S. Department of Commerce  
Patent and Trademark Office

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use several sheets if necessary)

Atty. Docket No.

03-659

Serial No.

10/626,796

**Applicant:**

Markus Kaufmann, et al.

**Filing Date:**

07/23/03

**Group:**

TBD

**U.S. PATENT DOCUMENTS**

Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
	5,338,198	08/16/94	Wu et al.	433	213	
	5,879,158	03/09/99	Doyle et al.	433	024	
	5,975,893	11/02/99	Chishti et al.	433	006	
	6,015,289	01/18/00	Andreiko et al.	433	003	
	6,068,482	05/30/00	Snow	433	223	
	6,099,314	08/08/00	Kopelman et al.	433	213	
	6,227,850	05/08/01	Chishti et al.	433	024	
	6,371,761	04/16/02	Cheang et al.	433	024	
	6,386,878	05/14/02	Pavloskaia et al.	433	215	
	6,409,504	06/25/02	Jones et al.	433	024	
	6,463,344	10/08/02	Pavloskaia et al.	700	098	

**FOREIGN PATENT DOCUMENTS**

		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
		WO 01 8 0 7 6 1	11/01/01	PCT				